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ORNITHOLOGY AT ST. MARK'S.

BY J. A. FARLEY.

ORNITHOLOGY at St. Mark's has nothing to do with the pigeons that flock to be fed in the sunny piazza in front of the ancient church. Nor does it apply to any birds, alive or dead, within the resplendent edifice. It has reference only to the remarkable mosaics of bird-life, done by an unknown mediæval artist, which may be seen just inside the glistening portals of the building. Ornithology at St. Mark's, therefore, means the pictures of birds that appear among the other rich Byzantine mosaics in the ceiling of the atrium of the venerable shrine of St. Mark the Evangelist. Most of these mosaics are of the thirteenth century and are thus among the earliest in San Marco, although exceeded in point of age by the famous eleventh and twelfth century work of the golden interior of the Venetian basilica.

The Old Testament story through Genesis and Exodus is told in the mosaics of the atrium; and their chief natural history lies in the series that illustrates the life of Noah. Most notable in this respect are the nine mosaics of the Flood. These are of the early thirteenth century. They may be seen on the under side of the arch that separates the main entrance of the church (door of St. Mark) and the cupola next to the Capella Zen. Arranged in tiers they show in the highest the building of the Ark, following the command of the Lord to Noah. In the tier next below the animals enter the Ark, by sevens and by pairs — the clean and the unclean. The four-footed creatures are grouped on the right; the crowd of birds are on the left. Among the latter are a number of representative Old World forms.

These bird-pictures are of deepest interest. The mediæval mosaicist (whether Byzantine master or Italian pupil), hampered though he was by his stiff art, did his work on the whole wonderfully well in respect to a truthful representation of nature. Furthermore, his art makes his remote age to live again — in a new and unexpected way. It appears that certain species of birds were as representative forms of wild life in the thirteenth century as they

are to-day. Birds as well-known now as then figure in mosaics made seven hundred years ago! It is hard not to speak in extravagant terms of the mosaicist who proved himself no mean naturalist (or at least observant student of nature) by portraying so faithfully the forms of wild life that he saw about him.

Conspicuous among these speaking likenesses appear two of the best known game birds of Europe which for centuries have afforded food and sport for man — the Red-legged Partridge, *Caccabis rufa*, and the common grey Partridge *Perdix perdix*. Not all of the bright, showy coloration of the Red-legged Partridge is pictured in the colored cubes of the mosaic, but the artist seized upon enough salient points of plumage to characterize the species completely. There is the striking, bold, black ring on the head behind the eye and the very evident row of transverse, black stripes on the sides and flanks, together with the white and brown quills of the wing. In spite of some minor faults, both of omission and commission, the species is exceedingly well-portrayed. Undoubtedly in the thirteenth century the Red-legged Partridge was as well-known a game bird and as much admired for its good looks as it is today. Small wonder that the artist took pains! Long, long before the Middle Ages, if report be true, this pugnacious fowl was kept for fighting purposes, like the game cock to-day, and tradition runs that the Emperor Alexander Severus enjoyed the sport.

The common grey Partridge — esteemed for the excellence of its flesh since the days of Martial — is as well pictured as the less succulent, red-legged species. Here again the mosaicist indicates plainly what is perhaps the best field-mark of the bird — the buffy head and throat and the contrasting, slaty, vermiculated breast. The characteristic cross-bars on the grey sides are strangely omitted, to be sure, but the narrow, whitish, linear streaking on the brown wings (another good diagnostic feature) appears plainly — though in a rudimentary way. Another good bird-portrait — broadly speaking — in spite of the relative failure as to details.

A third plainly portrayed game bird of Europe is the Pheasant. The handsome pair stand directly above the Grey Partridges and behind the Red-legged Partridges. The scarlet before and below the eye of the cock Pheasant is as well brought out in the mosaic as in any Dutch painting of still life. The rich orange of the

bird's back also is as well shown by the *tesseræ* as if done in pigment. A bird of long and famous history — and of early game law as well as myth — is *Phasianus colchicus*. The Argonauts brought him home along with the fleece and other spoil from the banks of the river Phasis in Colchis where in the swampy woods that border the stream the bird may be found to-day “as wild as a hawk” — in strong contrast to the semi-domesticated fowl of English covers. It is not impossible that this native of Asia Minor was introduced into Europe a dozen centuries before Christ. Certain it is that the Pheasant was naturalized at a very remote age to the west of its original habitat. It was well-known in Italy in the comparatively recent period of the Middle Ages, and was a table-bird in England before the Norman Conquest — as at Waltham Abbey where *unus phasianus*, as the substitute for two partridges, was permitted to the canons by Harold's bill of fare. Very likely the Romans brought the bird to Britain for they sometimes naturalized “strange animals” in the countries they conquered.

Still another very well-known food-bird of the Old World (highly esteemed for the table in the days of Moses and ever since) which if not “as big as life and twice as natural” is nevertheless so vividly pictured that even the tourist who runs may read, is the Migratory Quail, *Coturnix coturnix*. It is impossible to fail to identify this little, plump, brown pair, with their buffy breasts and variegated backs, as the Quail of Holy Writ. Strange indeed if the artist had forgotten in his feathered throng at the door of the Ark a bird so famous in Biblical story. Ranging over such an enormous area as Europe, Africa and much of Asia, the Quail was as well-known to the nations of antiquity as the Eagle and the Crane. Well-named “Migratory” it vies with the Swallow in crossing seas, deserts and lofty mountain chains.

The trusting expectant air with which these little, obedient fowl look up into the face of Noah as they await their turn at his hands is very naïve.

It should be observed that the bills and the feet of the Quail are red — which is an ornithological inaccuracy. But it will be noted how often in these mosaic-pictures red inaccurately appears on foot or bill. It is evident that the mosaicist deliberately availed himself of the vivid color (whether right or wrong) as the best way

of showing plainly these small and relatively insignificant parts of a bird. Similarly, various birds which are not entitled to it are decorated with a white eye-ring to bring out an otherwise indistinct or else wholly unobvious eye.

The central figure of the whole mosaic is of course Father Noah himself as he carefully puts into the Ark his pair of Peafowl. These birds are most beautiful. The splendid purple of the neck of the cock contrasts vividly with the green of the hen. As the Byzantine symbol of eternal life the Peacock is naturally the first bird to go into the Ark. The mosaicist is here at his best and with good reason. As the emblem of the beauty and glory of immortality, the lavishly-colored bird demanded special attention at the hands of the artist; and there resulted a finely drawn and colored picture as true to nature as to art. It is in the portrayal of this most magnificent of all birds that the man of the mosaics reaches his height as an artist of animal life. Like the Pheasant the Peacock is a bird of remarkable history. It was King Solomon's ship of Tarshish (or else a craft of King Hiram's) — the first "East India-men" of which we have information — that brought this native of Indian forests over the old trade route from the East. This importation of Solomon's into Palestine is the earliest record of the bird for the Mediterranean regions. Alexander the Great, however, is commonly thought to have introduced the resplendent fowl into Europe.

As would be expected, some of the more striking forms of cosmopolitan, water-bird life did not escape our mediæval artist's eye. His [correctly] red-billed, slaty Gallinule or Moorhen (one of the most familiar British wild birds of to-day and with closely-allied forms in America and Africa) is well depicted save for its red legs which artistic violation of avian proprieties has already been explained and condoned.

Another extremely well-known water-bird of wide distribution is the Merganser. Here again the artist has achieved an ornithological success — within limits. His pair of fish ducks have the crest and the toothed bill of their kind. Thus the strongly-marked form is extremely well-characterized. But while all-sufficient as to generic details which point unmistakably to *Mergus*, the crude coloration does not at all "favor" the striking and beautiful *M.*

serrator of the Northern Hemisphere. Save for their long crests there is nothing about these dull nondescripts to show that they are Red-breasted Sheldrakes; and even their eyes are white instead of the proper merganser red. Yet it is this well-known water-fowl of Asia, Europe and North America that the artist undoubtedly had in mind to portray. Did he tire? Or was it another hand? Surely the hand that pictured the Peacock, the Pheasant and the Partridge was skilful also to portray the green-headed and rufous-chested Sheldrake which the red Indian of undiscovered America knew as well as the Italian of the Dark Ages and he, in his turn, as well as the Venetian of a later day — the peregrinating water-bird, here, there and everywhere in the northern parts of both hemispheres; the same today and yesterday, now and forever, one and indivisible — judging by its non-plastic past.

Conspicuous by reason of their stature in the crowd of birds at the Ark's door stand the Cranes. These are the common European species *Grus grus*. The blue, long-legged waders lack the details of their color-plan. Yet the white stripe running down the side of the neck appears; while more important still the touch of red on top of the head, indicating the semi-naked crown of *Grus*, shows that the artist was at least aware of this most diagnostic as well as striking external of the Crane. This most ancient form of bird-life was pictured at an earlier day than the mosaics of San Marco for Cranes appear on the frescoed walls of Dehr-el-Bahari. But even 3,000 years are made to seem but as yesterday by this Miocene bird.

The "clean" barnyard Poultry are strongly represented in the throng of birds. In bold relief against the dark side of the ship, as well by their bulk as by their color, are the seven, fat, white Geese, red-legged and yellow-billed. The adjacent group of the same number of Fowl are the usual variegated barnyard lot — this old-fashioned type the same in the thirteenth century as to-day. The rooster in the corner has a splendid comb, in shape, size and color true to life; but his equally well-conceived (from an artistic standpoint), impressionistic, five- or six-feathered tail is woefully unavian in that it lacks more than half the total number of quills required to complete the thoroughly orthodox, galline tail. Again the mosaicist's license — or his limitations. This tail has an

astonishing resemblance to that other weird one of six feathers worn by the famous rooster of the spire of the West Barnstable meeting-house on Cape Cod.

Facing the Cock and the Hens stand the Ducks. Like their vis-a-vis neighbors these "clean" fowl seem also to say; "We are seven." Among them the inevitable Mallard, so frequent in Italian art, with his green head and white neck-ring appears. The Common Fowl alone excepted, no bird of economic importance has so greatly profited man; and the story of the domestication of this stock-form — the original of the modern barnyard Duck — is lost in the dim beginnings of history.

One last barnyard bird is the discordant Guinea Hen. The pair are crudely colored, for their blue dress has only rudimentary white streaks instead of being properly polka-dotted. Their red combs and wattles are also ineffective. Yet the species is unmistakable. The pair stand at the feet of Noah, and, like the Quail, look up trustingly into the face of the builder of the ship.

Not all the birds in this striking mosaic-picture are identifiable. Doubtless the artist evolved certain "freaks." But in addition to various nondescripts the like of which were never seen on land or sea, there are a pair of long-tailed and red-billed green Parrots which are plainly the common Indian species *Palæornis torquata*. This is the "Ring Parrot" which became known to Grecian bird-fanciers as one of the results of Alexander's Indian campaigns. Linné, indeed, believed the historic bird to be the Javan species of the genus which he named accordingly *alexandri*. But this species never could have come in contact with the Macedonian king's sailors. Nor is there much reason to think, as some have argued, that *P. eupatria*, the Cingalese species of this long-tailed Parroquet group, was the famous green parrot with a red ring on its neck which Alexander's people brought back to Europe. The weight of opinion favors the common Ring-necked Parroquet of India — *P. torquata* — as the Alexandrine bird, and its generic name sets forth its antiquity.

It should be observed that the half neck-ring of *P. torquata* is rosy, not white as in the mosaic. But here again we must not make too deep scrutiny into the mosaicist's mutiny. Probably he found that on the arch overhead the relatively small neck-ring of the bird

would be brought out much better by white than by pink. As to the unparrotlike white spotting on the breasts of the birds, this may be explained by the guess that either a moulting or a cage-worn specimen was copied. The artist must not be taken too strictly. It is not assumed that he ever saw the Ring-necked Parroquet in its native Indian wilds. Let it suffice that we see in the mosaic undoubtedly the first representation in color of the ancient Parrot which Aristotle mentions and Pliny describes.

The flocks of the Ring-necked Parroquet swarming in the jungle are among the characteristic features of the East Indian landscape. Not only in forest but in town and village the harsh cries and abundance of the beautiful bird make it notable. It is the best known of East Indian parrots — this “Rose-ringed Parrakeet.”

Among the remaining birds, more or less identifiable in the picture, are a small white pair which are probably meant for Doves; and a second Columbine pair, green-backed and black-billed, which seem to represent some species of the very edible East Indian green Fruit Pigeon group — *Treroninae* — several species of which are found commonly in India today.

There are more birds in the lowest mosaic which shows the entry of Noah and family into the Ark. The family stand at attention while “the father of the flock” puts into the ship his last remaining birds. As Noah hands in two splendid yellow-eyed and black-billed Eagles, he turns and gazes full-faced at the spectator with a most imposing air of playing to the gallery. These Eagles are finely colored; and this is specially true of their yellow legs and feet and black claws which are depicted — one might almost say *drawn* — with painstaking care. As in the case of the Peacock the artist plainly took special pains with his Eagles as would be expected in the unscientific age that regarded the Eagle as the King of birds.

The naked tarsi of these birds indicate that they are Sea Eagles (*Haliæetus*), although there is no reason to doubt that the “nobler” form — the Golden Eagle of the feathered leg — was a well-known bird of the period in Italy. Perhaps the mosaicist’s zoological knowledge did not extend so far as tarsi, whether feathered or not. On the other hand the black bills of the pair indicate the genus *Aquila* of which the Golden Eagle, wide-spread in the Northern Hemisphere (but a rather “better” bird in America than in Europe),

is the fine type. Certainly, the artist in his benighted age had never heard of either *Aquila* or *Haliaeetus*. Hence this generical confusion is probably only another case of the artist's (like the poet's) license — a mixing, that is, not of metaphors but of characters.

On the ground, in front of and facing Noah, stand a pair of either Crows or Ravens — but incorrectly yellow-eyed. Behind these come a pair of Storks, red-billed and red-legged — as in life. The only unlikeliest thing about these familiar birds of tale and fable is the restricted black of their quills. In reality the extensive black on wing of the Common Stork, contrasting with the snow-white of the rest of the body and the red of bill and legs, makes the three-foot bird a conspicuous object in the Continental landscape.

Behind the Storks again come a pair of Pelicans. Tiring of the long wait incidental to the movement of such large numbers of living things these honest birds have calmly and comfortably squatted down on the *whole* foot — giving a restful touch to the whole proceeding — like the sensible, well-conducted “totalpalmates” that the artist undoubtedly intended to portray.

Behind the patient Pelicans wait in their turn a pair of graceful, purple Herons, slim-necked and black-crested, which seem clearly referable to the African genus *Melanophox*.

In rear of all and vivid against their gold background stand a pair of good-sized slaty birds — black-headed, billed and footed, and to a less extent black-winged. These are the well-known and widespread Hooded Crow of Europe — *Corvus cornix*. They are well depicted save for the too-restricted black of the wing.

While this completes the tale of the birds of the Entry, it is hard not to glance at the extraordinary pair of smiling carnivora in the adjoining animal section which in the insistent hands of Noah are going into the Ark docilely like great, good-natured, fat, obedient Puppies which indeed they much resemble; nor at the tender face of Noah himself as he looks down fatherly at his puppy-like pets.

The story of Noah is continued on the opposite [right] side of the arch. We now see a submerged world, and the rain still comes down. But in the next scene behold the hungry Raven with greedy glittering eye as he feeds, oblivious of all else, on a floating carcass; while from Noah's hands, at a window of the ship, the gentle Dove (with most unavian wings it must be owned) is preparing in her turn to sally out.

In the next mosaic the Dove has returned, and there ensues the exit from the rainbow-encircled Ark. We see the enterprising Red-legged Partridge already perched at the corner of the roof of the craft; the Dove standing in the gutter, as if in doubt, yet preparing to fly; next an unidentifiable water fowl; and last (to complete this party of "early birds") the Guinea Hen. One final bird—an astonishing nondescript like nothing ever seen on sea or shore, with its red bill and foot, blue and white body, black crown and white crest—flies out into the very eyes of Noah who with a stern face is hauling out of the Ark's dark door the sprawling Lioness.

The series of Flood mosaics ends with Noah's sacrifice and the rapid dispersal of the animals which rejoicing in their recovered freedom are seen leaping away in every direction over the dripping rocks. It should be said in simple justice to Father Noah (and the artist) that throughout these Flood mosaics the captain of the ship wears the air of portentous gravity that well befits the individual upon whose shoulders rests the burden of the preservation of the entire animal life of the globe!

The Creation mosaics (with their accompanying Latin inscriptions) of the cupola that adjoins the arch of the History of Noah contain more natural history which it is hard to ignore. In the section that shows the Lord making living things, Peacocks appear; while in a little pool a pair of black, coot-like birds swim close to a bright green crocodile.

Most naïve is the mosaic of Adam naming the beasts. (*Appellavitque Adam nominibus suis cuncta animantia.*) The engaging Lioness upon whose head the First Man lays his hand has a most docile and half-human face—though with tongue far run out. That "one touch of nature makes the whole world kin" (or did at least before the Fall) is mirrored in the childlike complacency and the meek pride in her just-bestowed name of this artless beast. True indeed it is of this gentle Jane that she "bears her blushing honors" meek upon her.

The mediæval mosaicist rises nearest to greatness as an artist of the great out-of-doors in the beautiful mosaic that shows the creation of birds and fishes (*Dixit etiam Dominus: producant aquae reptile animae viventis et volatile super terram: jumenta et omnia reptilia in genere suo.*)

The picture is a crowded one — full of life and motion — kaleidoscopic — a phantasmagoria in fact of bird-life and fish-life — but with really good effective grouping. There is a whirl and a swirl of fishes in the blue sea below and a crowd of flying birds in the pale sky above. The sea swarms with brilliant-hued fish darting this way and that, the whole revolving around the central figure of a terrific sea-monster, bewhiskered and with plesiosaurus-like teeth — undoubtedly the earliest known representation of the sea-serpent (but agreeing wonderfully well with latter-day descriptions by truthful mariners) and as such peculiarly fit for mural decoration in maritime Venice.

The crowd of birds overhead in the breezy firmament complete the other half of this most beautiful mosaic. They are mostly seafowl although the inevitable Owl, so favored by mediæval artists, appears. There are the conventional Mallard, the Swan, Gulls white and pied, an Egret (for the Egret was as well-known in a state of nature — if not on woman's head-gear — in the thirteenth century as in a later Audubonian day), and various non-descripts — nearly all with legs and wings poorly, yes appallingly, drawn but the whole flock well grouped nevertheless and exceedingly full of life and motion. The breezy picture in short smacks of the sea, and the forgotten artist who made it surely knew his sea.

The simple beauty of the very early mosaics of Byzantine type in the atrium of San Marco appeals to all. Most original and often quaint they are undoubtedly among the most attractive of the earlier mosaics in the glorious building — as they are among the finest. But these Old Testament subjects take on an added interest when the fact of their origin is recalled. The mosaicists who executed them copied *Byzantine originals*. The illuminations in some early Bible of type similar to the Cotton Bible (if not in that ancient book itself) are evidently reproduced on the vaulting and the arches of the atrium. Even if not copied direct from the Cotton Bible of the fifth century, at least the designs are essentially identical with the paintings in that age-worn book.

Lord Macauley seems to have noted as early as any the likeness of the atrium mosaics to the miniatures in an early Bible. He has told of the pleasing impressions which he gained from his inspection of St. Mark's. "I never was more entertained by any build-

ing," he writes. "Everything carries back the mind to a remote age; to a time when Cicero and Virgil were hardly known in Italy; to a time compared with which the time of Politian and even the time of Petrarch is modern." As a Latinist he must mention the "very badness of the rhyming monkish hexameters;" while confessing that "there is something attractive to me" in this "very badness" — as there is also in the "queer designs and false drawing of the pictures." The final comment of this busy brain is of special interest. After "an hour spent in making out" the Biblical histories of the atrium, the historian concludes: "They amused me as the pictures in very old Bibles used to amuse me when I was a child."

The future peer of Rothley dipped into a vast number of books in his omnivorous-reading, boyhood days. It seems a safe inference that some at least of his "very old Bibles" were of the Cotton type or model which furnished in the thirteenth century the designs for the Genesis and Exodus mosaics of the atrium of San Marco — and doubtless also for general Bible illustration of the day.



CRITICAL NOTES ON THE EASTERN SUBSPECIES OF *SITTA CAROLINENSIS* LATHAM.

BY HARRY C. OBERHOLSER.

THE name *Sitta carolinensis carolinensis* is now applied to the White-breasted Nuthatch of the northeastern United States and southeastern Canada. Recent investigation, however, shows that the Florida form must be called *Sitta carolinensis carolinensis*; and since none of the names for eastern birds of this species is found to be available for the northeastern race, the latter must be given a new designation. Therefore the eastern races of *Sitta carolinensis* will stand as below: